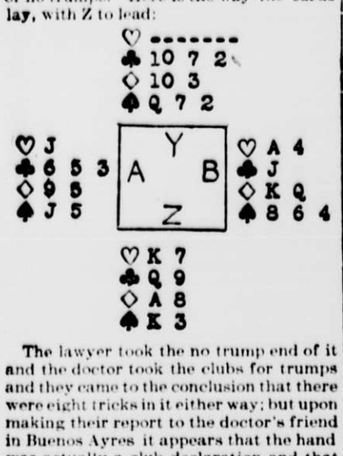
PROBLEMS FOR SUN READERS TO SOLVE

Clubs or No Trumps, Either One the Answer in This Bridge Hand.

INGENIOUS MAGIC SQUARES

Puzzles in Stars—Checkers End Game With "Great Wallop" In It.

In the position shown in bridge problem No. 169 the question was to determine not only the greatest number of tricks possible to win with the Y and Z hands but also whether the declaration was clubs or no trumps. Here is the way the cards lay, with Z to lead:



The lawyer took the no trump end of it and the doctor took the clubs for trumps and they came to the conclusion that there were eight tricks in it either way; but upon making their report to the doctor's friend in Buenos Ayres it appears that the hand was actually a club declaration and that Z got only seven tricks. The man who bet he should have got more was correct.

The play is the same, regardless of the declaration. Z exhausts the clubs by starting with the queen, and Y overtakes the nine with the ten, so as to lead a third round, forcing two discards from B, and it is these discards that solve the problem, Y and Z meeting any of their five varieties with the proper attack.

B may discard two hearts, two diamonds, two spades, a heart and a diamond or a heart and a spade. If he lets go two hearts he makes the two hearts in Z's hand good for two tricks. If he discards two diamonds he makes two of that suit good against him and if he discards two spades he makes three of that suit good, instead of two only.

In providing for two discards his first choice is easily a heart, as he cannot afford to let even one spade go without unguarding the suit, and he cannot let go a diamond without making Y's ten good.

On the second discard to the third trick, if B lets go a diamond, Z throws away a small heart, Y leads a small diamond for the fourth trick, and gets in again with the ten on the next trick. Now, if B has discarded the ace of hearts, Y leads a spade and Z makes his two kings and returns the spade for Y to make the last trick with the queen.

If B lets go a spade on the third trick Z still discards the small heart, but Y leads a small spade instead of a diamond. Z winning with the king and returning the suit, so that Y shall make the third spade at once, forcing another discard from B, who must let go a diamond or give up the ace of hearts.

If B discards another heart for the third trick Z will change his discard to a diamond and Y will lead a small diamond to him. Z will make two heart tricks and the spade king, letting Y win the last trick with the queen of spades.

A number of solvers fell into the same error as the person who originally played the hand and got only seven tricks out of it with clubs for trumps. This was because they tried to use the clubs as trumps and started by leading a small heart for Y to ruff.

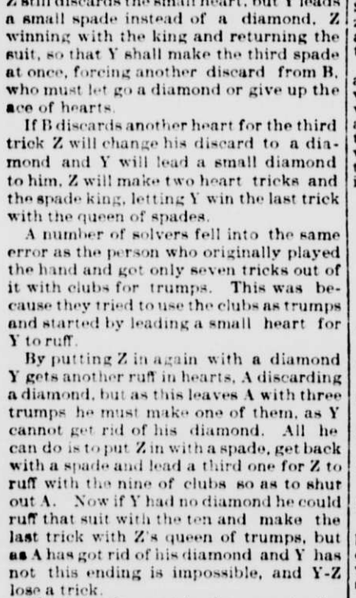
By putting Z in again with a diamond Y gets another ruff in hearts, A discarding a diamond, but as this leaves A with three trumps he must make one of them, as Y cannot get rid of his diamond. All he can do is to put Z in with a spade, get back with a spade and lead a third one for Z to ruff with the nine of clubs so as to shut out A. Now if Y had no diamond he could ruff that suit with the ten and make the last trick with Z's queen of trumps, but as A has got rid of his diamond and Y has not this ending is impossible, and Y-Z lose a trick.

The following sent in the correct solution, which is that no matter which was the declaration Y and Z get eight tricks, so that the bet between the doctor and the lawyer was a standoff:

Harry Asher, Merrimack, W. Ogden, James Hunter, Jay Reed, Algernon Bray, H. A. McLellan, Burton D. Blair, Frank Roy, J. W. Miller, W. P. W., E. Beebe, James Steen, E. M. Frost, George Hendricks, H. E. W., H. C. Root, George B. Glover, C. F. Johnson, Henry Andresen, J. W. Wortz, B. G. Braine, C. L. Lynn, Terry Gates, Milton C. Isbell, W. A. Bulkley, D. Perry, D. A. W., Kenneth S. Hogg, George R. Hann, Keystone, Herbert Riker, O. H. Boston, H. C. Hill, J. B., B. M. C., J. W. Cromwell, Jr., A. J. Schmutz, William H. Haynes, Pauline Newbold, A. C. Sherwood, W. T. Bauskett, H. K. Thaw, D. Shinns, C. F. Darling, Max Williams, Charles M. Root and C. H. O'Connor.

Here is a problem that is not entirely original, but is arranged from the ending of a thirteen carder which attracted some attention a few years ago:

BRIDGE PROBLEM No. 171.
By Jay Reed.



Clubs are trumps and Z is in the lead. Y and Z want five of these seven tricks against any defence. How do they get them?

CHECKER ENDINGS.

As Frank Roy remarks, the position shown in No. 169 has a great wallop in it. Here is the distribution: Black men on 6, 10, 21, kings on 14 and 15. White men on 7, 23, 30, king on 25. White to play and win. Here are the moves that solve:

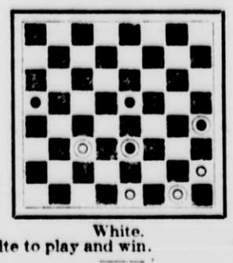
White.	Black.
28—19	15—24
30—26	21—30
7—2	30—23
2—20	

By giving away three men one after the other white obtains a winning position of king against king. Correct solutions from:

C. L. Lynn, C. H. O'Connor, Herbert D. Martin, Frank Roy, Peter Monsouris, E. F. Duffy, Frank C. Husted, W. J. Hatfield, O. H. Boston, Lemon Thomson, Robert T. Blair, William C. Benedict, E. C. Werdann, E. H. Decker, Country Nutmegger, E. R. Leith, Milton C. Isbell, Herman Herst, Jr., James Steen, W. T. Allen and J. W. Miller.

Here is a position that should prove instructive for the beginner.

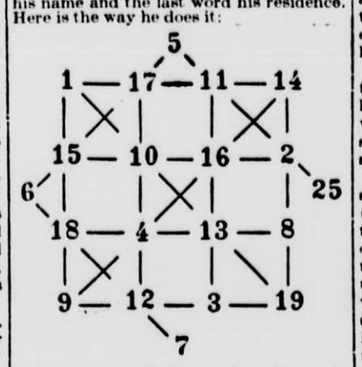
PROBLEM No. 171. CHECKERS.
Black.



White.
White to play and win.

THE STAR AND SQUARE.

So far there have been only two correct solutions to this problem. One came from a correspondent who always signs himself "O. H. Boston," the initials being those of his name and the last word his residence. Here is the way he does it:



As this uses all the numbers from 1 to 19 in order and then skips to 25 it is hardly likely that it can be beaten, especially if 42 in a row is the lowest possible, and this solution gives only 43 in a row, with a grand total of 215, which shows that the young man got 85 pieces of silver for his trouble.

Charles D. Shuldham of Milburn, N. J., after being in third place last week with a total of 45 to the line, got it down to 43 by using all the numbers up to 22 except 17 and 21. It is curious that both he and O. H. Boston worked out the solution by algebra.

There were in all 63 solutions sent in for this puzzle. Of the solvers fifteen or twenty thought it could not be done under 300. Only the two whose names were given last week got it down to 44. Eight got it to 46, and a large number hit 48, 49 and 50. The last figure was the favorite.

As no one seems able to guess at the trick in the magic square printed two weeks ago, which was suggested to THE SUN by one of its crack solvers, E. Leipziger of Terre Haute, Ind., the solution may as well be given now without prolonging the agony.

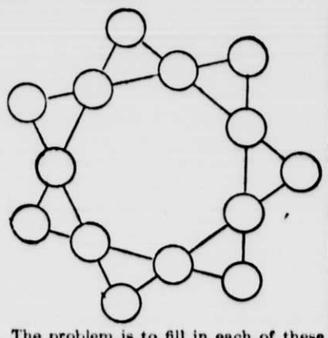
Had any person taken the simplest of all magic squares of nine cells, several of which have appeared in this column, with 4 9 2 in the top row, 3 5 7 in the next, and 8 1 6 at the bottom, and then followed the direction given with the puzzle, which was to transpose the figures into words, there would not have been much difficulty in getting this:

FIVE TWENTY
SIX TWENTY
THIRTY NINE
EIGHT NINETY NINE
SEVEN OH THREE
SEVEN NINETY EIGHT
SEVENTY EIGHT THIRTY EIGHT
EIGHT OH THREE
SEVENTY NINE

The only letters in these words that can be read as Roman numerals are picked out and enlarged, so as to show that they will fulfil the conditions of the magic square.

SEVEN POINTED STARS.

It is rather curious that as the number of points in a magic star is increased the easier it seems to be to find an arrangement of numbers which will add the same in every direction. Take the following figure for example:



The problem is to fill in each of these fourteen circles with a number, anything from 1 to 50 will do, but to have no two numbers alike, and so to arrange them that each of the seven rows of four circles shall add the same.

This is an easy one, just a little training for a much harder one that is to come when the solution of this one has been shown.

Amulets of European Sovereigns.

From le Cri de Paris.

Every sovereign in Europe has faith in some amulet. William II. is in possession of several from which he will not be separated. When he mounts his horse he puts on the spurs of Charles XII. of Sweden, and he never goes anywhere without the sleeve buttons which came to him from his grandfather.

George V. made his triumphal journey to India with a little bracelet of platinum which he received from an intimate friend, who owed to this fetich an escape from a great danger.

The King of Sweden never makes a journey, not even a simple promenade, without wearing on his finger the ring of his ancestor, Bernadotte.

The Czar, who is extremely superstitious, always consults the almanac before setting out to know if the day is favorable and never fails to provide himself with a little icon to keep away bad luck.

Alphonso XIII. is more sceptical. He collects the stones, bullets and fragments of bombs of the attempts that have been made upon his life and relies solely on his lucky star to escape in the future from like dangers.

REPLY TO THE BID OF ONE ROYAL BY DEALER

Interference With the Call by Third Hand Usually Dangerous.

SIGNALS IN THE RED SUITS

Special Circumstances to Bear in Mind in Bidding at Auction.

Just as the third player has to be careful in his inferences as to the possibilities of his partner's hand when the dealer starts with a bid of two spades, so he will have to be cautious about his answer to an original call of one royal, because it is usually dangerous to interfere with a bid of such value that it comes next to a no trumper and takes two tricks in anything to overcall it.

The dealer who starts with a royal announces that he holds enough of the suit to be willing to play for the odd trick with spades for trumps, and that even if his partner has a better call, which would be no trumps, he would prefer to have such strength laid down on the table in his dummy as an assistance to his spade suit.

In this respect the royal differs widely from the regular bids of one trick in hearts or diamonds, which used to be called the winning suits. A player will call one heart or one diamond with only four cards in the suit if two of them are the ace and king, and he will call if if he has only three, provided they are the top honors, even if there is not another trick in the hand.

He does not want to play hearts for trumps, as it is probably the worst suit he could pick for such a purpose, but he wants to show his partner where his strength lies, so that the third hand may shape his course accordingly.

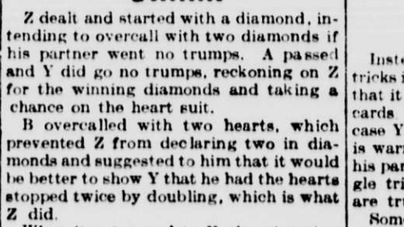
As a recent writer puts it: "To understand the reason for bidding on short suits headed by winners in preference to long suits without them one must keep continually in view that the first round of the bidding is for the purpose of leading up to a no trumper if possible, and that when a player has not a no trumper himself he still hopes for one in his partner's hand, and accordingly gives all the information he can as to his real strength. But the strength wanted in a no trumper is not six cards to a ten, but aces and kings. Even queens are of no value in original bids."

The only way in which the dealer can show in his original call that he wants hearts or diamonds for trumps, and that his cards in the suit are not good enough to be of any assistance to a no-trumper, is to declare two tricks in the suit at once. The conventional meaning attached to such an opening declaration, when made by a good player, is: "Let me alone, no matter what you have."

But few players care to assume the unnecessary trick on a blind bid, and the general custom with the red suits is to start with one trick and to be ready to overcall with two tricks in case the partner goes no-trumps. The persistence in returning to the suit first declared shows the third hand the difference between the hand with the short suit and winning cards, and the long suit with smaller cards, marking the distinction between an invitation to him to go no trumps and a wish to name the trump suit from your own hand.

While this system avoids the unnecessary risk of a two trick call at the start, it may prove difficult to carry out the theory if the partner turns out to be not the only bidder, because there is no way of setting him right after giving him a wrong impression at the start, except by repeating the call in the suit, regardless of expense.

The great objection to this system is the misleading of the partner by a bid that may mean either one of two things when a red suit is named, and which is not clear to him until the second round, and then only if he overcalls and is overcalled in turn. In order that the student may understand clearly how this system of bidding red suits differs from the system of bidding royals, here is a rather curious example of the misunderstandings that the old auction system of bidding on the winning suits sometimes led to:



Z dealt and started with a diamond, intending to overcall with two diamonds if his partner went no trumps. A passed and Y did go no trumps, reckoning on Z for the winning diamonds and taking a chance on the heart suit.

B overcalled with two hearts, which prevented Z from declaring two in diamonds and suggested to him that it would be better to show Y that he had the hearts stopped twice by doubling, which is what Z did.

When it got round to Y the situation seemed clear enough to him. He had a spade suit that should be good for six tricks and he has the clubs safe. Z has one or two sure tricks in diamonds, shown by his opening bid, and has the hearts stopped twice, shown by his double.

This being the situation, Y has a sure game hand at no trumps and sees no object in letting the double stand, so he overcalls with two no trumps.

At this point B saw his advantage. If he doubles the two no trumps he will provably frighten Z back into four diamonds (this being played at the old count), and he can then double that and defeat it if Z is the player who is long in both the red suits because he can exhaust Y's trumps and then make his two hearts, setting the contract in the first four tricks played.

Z did not see any need of pulling his partner out of the no trumper, and had no idea that Y's bids were all based on Z holding the winning diamonds, so the hand was played with Y as the declarer and the contract was set for 200 points.

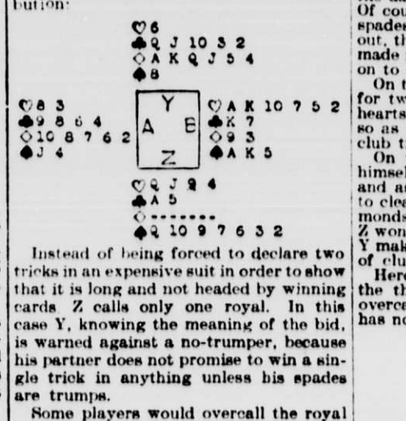
B started with the hearts, and as soon as he saw that dummy had no spades to lead he went right on with a third heart, putting Z in. Y saw that either way he played the club suit he would block it unless he could catch the king with the ace, so he took a chance on that and then led the small club, which allowed B to force his last heart.

Had Z led the diamond instead of the club, as the cards lie, A would have held the trick with the jack and would have come right back with it, as B would be marked with both ace and king, while the spades are an uncertainty. This would have brought about the same result as the club lead. As it was, B made his king of clubs, cleared the hearts and made seven tricks on the hand.

The loss on this contract is due to Z's reluctance to bid two diamonds at the start and his not having the opportunity to do it later, B's bid forcing him to three tricks. For the dealer to make things perfectly clear to his partner at the start there is only one way to bid the so-called winning suits, and that is to call one trick with the sure trick-taking cards, and to call two tricks with the long weak suits.

But when we come to the spade suit in royals, the bidding is exactly reversed. We bid two tricks in the cheap suit, spades, when we have the winning cards and no length, which leaves the partner free to overcall with as cheap a bid as one trick in anything. We bid only one trick on the length, which forces the partner to let us alone unless he is willing to go as far as two tricks in his own suit.

To illustrate the difference this makes let us take the foregoing hand and transpose the two important suits, diamonds and spades, which will give this distribution:

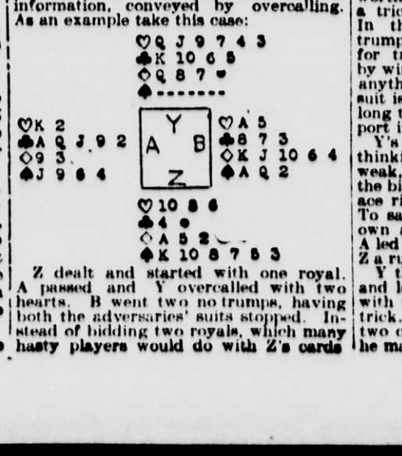


Instead of being forced to declare two tricks in an expensive suit in order to show that it is long and not headed by winning cards Z calls only one royal. In this case Y, knowing the meaning of the bid, is warned against a no-trumper, because his partner does not promise to win a single trick in anything unless his spades are trumps.

Some players would overcall the royal with two diamonds, but that is a mistake. If B bids two hearts, Z will overcall with two royals, and his partner is still in no doubt about the hand upon which the declaration is made. If B leads trumps to protect his heart suit, which is a common artifice, Z will make three by cards.

In the red suits, it is conventional for the third hand to overcall his partner when he cannot support the suit named by the dealer, but has a good red suit of his own, which is useful only as a trump suit and would be of no assistance in a no-trumper and therefore not of much help in carrying out the contract on royals.

Players who are careful in their inferences from the bidding will find many opportunities to avail themselves of this information, conveyed by overcalling. As an example take this case:



Z dealt and started with one royal. A passed and Y overcalled with two hearts. B went two no trumps, having both the adversaries' suits stopped. Instead of bidding two royals, which many hasty players would do with Z's cards Z infers that his partner cannot help him in the spade suit and that his hearts are long and weak, because if his hearts were trick winners Y would support the spade suit as a royal.

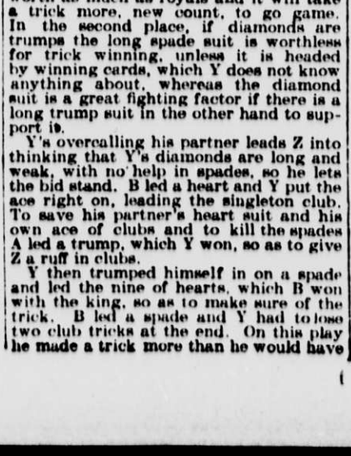
If Y has nothing in spades he must have sufficient hearts to justify overcalling, and as Z has three hearts himself they should have eight or nine between them, and if that is the case the heart is a better proposition than the royal, so Z overcalls B's no trumper with two hearts.

At this point A, who holds the only suit that has not been called except the diamonds, and who knows that must be his partner's strength and also that B has both the called suits stopped, goes to B's assistance with two no trumps, whereupon Y and Z both refuse to cross the danger line of a three trick contract. Of course if Z had known that Y had no spades at all, and could ruff that suit out, they could have bid three hearts and made it, but B would probably have gone on to three no trumps after A's assist.

On the play Y and Z set the no trumper for two tricks. Z led his partner's suit, hearts, and B let it come up to the ace, so as to take a club finesse. Y won the club trick and cleared the hearts.

On the third round of clubs A found himself blocked by the ten in Y's hand, and as he had no reentry it was useless to clear the suit, so he shifted to the diamonds, leading the nine and ducking it. Z won with the ace and led a third heart, Y making the rest of that suit and the ten of clubs.

Here is an illustration of a case in which the third hand should have refused to overcall his partner's royal, although he has not a spade in his hand:



Z dealt and declared one royal. A passed and Y called two in diamonds, which every one passed. With any play he makes his contract; with the best play he makes three by cards, but at the same time he loses the game, because for two reasons he had no right to overcall his partner.

In the first place diamonds are not worth as much as royals and it will take a trick more, new count, to go game. In the second place, if diamonds are trumps the long spade suit is worthless for trick winning, unless it is headed by winning cards, which Y does not know anything about, whereas the diamond suit is a great fighting factor if there is a long trump suit in the other hand to support it.

Y's overcalling his partner leads Z into thinking that Y's diamonds are long and weak, with no help in spades, so he lets the bid stand. B led a heart and Y put the ace right on, leading the singleton club. To save his partner's heart suit and his own ace of clubs and to kill the spades A led a trump, which Y won, so as to give Z a ruff in clubs.

Y then trumped himself in on a spade and led the nine of hearts, which B won with the king, so as to make sure of the trick. B led a spade and Y had to lose two club tricks at the end. On this play he made a trick more than he would have done had he not led the singleton club when he did.

Had Y left the royal declaration alone neither A nor B would have interfered with it. If either did interfere Y should have supported it, instead of shifting. This would give A the opening lead and he would play the king and ace of clubs, Z ruffing the second round and leading the ten of trumps to get two for one. As there is no danger of losing the ace A would naturally let this trick go up to B.

Now if B comes with a heart, he can save a trick, but he would undoubtedly follow the more natural play and force Z again with a club, leading the queen. Z would ruff and lead trumps again until he forced out A's ace.

If A put the ace of trumps right on, as he should, his play would be to kill that diomond suit at once by leading it before Z gets all the trumps out. Z would let the trick come round to his jack, pull the trumps and return the diamond, making every other trick and the game, as all that A and B get out of it is a club and two trumps.

The rule would seem to be, so far as present experience with the game of royals goes, that the third hand should overcall when he has a long weak suit of his own and nothing in spades to support his partner, because while he has no spades, his partner may have several of the suit the third hand calls.

But if the third hand holds the winning cards in his suit, he should let the royal stand, even if he has no spades to support it, because if he shifts, he may be reducing the spade suit to one of no value and at the same time be taking on an extra trick contract for a cheaper suit.

Nettles as Substitute for Cotton.

From the Chicago Tribune.

The search for a cotton substitute has been going on in Europe for a long time, and many experiments have been made with the common nettle, which has been a promising plant on account of the strength of its fibre and its ready growth wild under the most discouraging conditions, with a large yield per acre.

The great difficulty has been in separating the fibre from the woody stem. In a method of treatment that has been worked out in the last two or three years the dried nettle stems are boiled about half an hour in dilute soda lye, and the loosened fibres are then separated in a machine with revolving brushes. The material is then subjected to a number of alternate boilings in dilute lye and thorough washings, both under high pressure.

The product is a mass of yellowish fibres free from gum, that can be bleached, combed and spun into lustrous white yarn. This is claimed to have the smoothness and softness of flax, with a strength even greater than that of hemp. The yarn has been made into brilliant damask, and can be used—alone or with other threads—for upholsteries, ribbons and a variety of fabrics.

Superstitions of Southern Slaves.

From the Southern Workman.

As a part of the folklore of the negro people the superstitions of slavery days are of great interest. The following are some of the negro's beliefs about ghosts:

To feel a hot breath of air strike you at twilight signifies the near by presence of a ghost. Should you wish to avoid him stop and turn you coat and trousers and hat wrong side out and the spirit cannot encounter you. If, however, he is a pugnacious sprite and approaches malgre vous change turn and address him thus, "In the name of the Lord, what do you want?" Whereupon he will tell you his business upon earth, then depart and never, never trouble you again.

If, on the other hand, it is a prowling ghost who crawls under the house, bumps against the floor, makes strange sounds and whispers in the midnight hours you have only to put in a new floor and he will do so no more. Some ghosts are obtrusive and will not only prowl about the house but creep in through the cat hole or under the crack of the door during the wee sma' hours of the night, and once inside expand to vast proportions.

To spare yourself any disturbance in this way sow mustard seed all about the doorstep just before going to bed, or place a sieve on the doorstep. Before entering, the spirit will have to count all the holes in the sieve or all the mustard seeds, and by this time daylight will come and he will have to go. As the counting for one night will not do for another you are always safe.

Strange Recovery of Watch Nine Years Lost.

Pasadena correspondence San Francisco Chronicle.

Nine years ago Mrs. Tracy Drake of Chicago lost a tiny diamond studded watch, valued at $1,100, here while attending a large open air meeting. Every effort was made to recover it, and the conclusion was finally reached that it had been taken by a pickpocket. To-day, after a heavy shower, Mrs. H. I. Jacobs, walking through the lot where the crowd had assembled, found the timepiece.

It was little damaged, having evidently been trampled in the soft dust and eventually buried, to be uncovered by the storm. The police records disclosed its ownership and the treasured keepsake is already on the way East by express. It was a honeymoon present from Dresden bought while he and his bride were abroad.